

# Statewide Traffic Engineering and Safety Informational Series Survey: The Results

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Effective communication with decision-makers and the general public is a vital task of state, county, and local transportation professionals. Questions must be answered in a clear and consistent manner and based on accepted engineering reference material. During the past year, the Iowa Department of Transportation, the Center for Transportation Research and Education (CTRE) at Iowa State University, and the University of Iowa developed and distributed a traffic and safety informational series survey. The objective of the survey was to determine the 20 most commonly asked traffic and safety questions in Iowa. The survey was sent to approximately 300 transportation professionals and was also available on the worldwide web. It requested that respondents estimate, on a scale of 1 to 5, how often the public asked them 12 specific questions. The survey also asked the respondents to add and rank questions they thought should be considered in the series. About 100 responses were received, and 77 questions were suggested by the respondents. Two-page answer sheets are being prepared and reviewed for 10 of the 12 questions included within the survey and 10 questions that summarize those suggested by the respondents. This paper discusses the objectives and tasks included in the informational series project. The survey and its results are summarized, and the format of the proposed answers are described and presented. The status of the project and its schedule are also provided. The informational series project should provide a useful and understandable public information and education tool for transportation professionals. Key words: safety, traffic, public information.

## INTRODUCTION

Transportation professionals are often asked to explain relatively complicated traffic safety and engineering issues. In fact, different people often ask the same type of questions. The goal is to answer these questions in a clear, consistent, and correct manner. The informational series project described in this paper was designed to address the most commonly asked traffic safety and engineering questions/issues raised by the general public and governmental officials.

## PROJECT OBJECTIVES

Communication with the general public and decision-makers is a vital task for transportation professionals. Answers to questions must be consistent and based on accepted engineering reference and research material. The objective of the project described in this paper was to address commonly asked traffic and

safety questions in a series of two-page answer sheets. Upon completion, these answer sheets will be distributed to transportation professionals throughout Iowa.

## PROPOSED PROJECT TASKS AND SCHEDULE

The informational series project included five tasks. The first task involved the construction and distribution of a survey. This survey was sent to transportation professionals in Iowa and was used to identify the most commonly asked traffic and safety questions. The second task of the project included an analysis of the survey results and the selection of 20 questions to answer in this informational series. This task is the focus of this paper and is discussed in the following paragraphs. The third and fourth tasks of the project included the completion and editing of two-page answer sheets for each question and a review of the answers by an advisory committee. This review is currently being completed. Finally, the fifth task included the update and distribution of the entire informational series to transportation professionals throughout Iowa.

The project began in the spring of 1999 and tasks one to three are primarily complete as of December 1999. The answer sheets are currently being reviewed by an advisory committee and may also be reviewed by some of the survey respondents. Distribution of the informational series is currently scheduled for spring 2000.

## THE SURVEY

To be useful, an informational series must address those questions and issues addressed most often by transportation professionals. The first task of this project was the construction and distribution of a survey to identify these questions/issues within Iowa. The survey constructed and distributed is shown in Figure 1. It included a short paragraph of introduction that explained the objectives of the survey and project and asked the respondents to weigh how often they were asked 12 specific questions. The scale provided went from one (frequently asked) to five (never asked). The respondents were also asked to suggest and weigh their own questions. The results of the survey are discussed in the following paragraphs.

## SURVEY RESULTS

Approximately 300 surveys were mailed, along with a postage-paid and pre-addressed return envelope, to transportation professionals throughout Iowa. The survey was also available on the Center for

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Center for Transportation Research and Education  
**Traffic Safety and Engineering Informational Series Project**  
**Survey of Iowa Transportation Professionals**

We need your help! The Center for Transportation Research and Education (CTRE) at Iowa State University is distributing this survey to transportation professionals in Iowa. The results of the survey will be used to identify common questions/topics that should be addressed by one to two page informational answer packets. These packets will be distributed to transportation professionals throughout Iowa (as a handout for the public).

Please rate the following questions and topics, from 1 (something that the public frequently asks) to 5 (something that is rarely or never asked). Also, feel free to add and rate your own questions or topics. The 20 questions/topics with the most weight will be addressed.

We would like to develop the answer packets at the end of the summer. Please mail, fax, or phone the survey results by August 15, 1999 (submittal information at the end of the survey). This survey will also be available at our website: [www.ctre.iastate.edu](http://www.ctre.iastate.edu). Thanks.

Name: \_\_\_\_\_

Position: \_\_\_\_\_

City or Co.: \_\_\_\_\_

Address : \_\_\_\_\_

Phone #: \_\_\_\_\_

Fax #: \_\_\_\_\_

QUESTION OR TOPIC:	LEVEL OF IMPORTANCE				
	(1=frequently asked)/(5=never asked)				
	(1)	(2)	(3)	(4)	(5)
1. Why can't we have a 4-way stop to reduce accidents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Why can't we have stop signs to reduce speeding along my street?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Won't a traffic signal reduce accidents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Won't a lower speed limit lower travel speeds and the number of accidents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Why aren't there better, longer lasting stripes on the road?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Won't a "CHILDREN AT PLAY" sign help protect our children?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Why can't I have several driveways to my property wherever I want them?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**FIGURE 1** Sample informational series question survey.

	(1)	(2)	(3)	(4)	(5)
8. Safe driving procedures at railroad crossings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. What is the harm in installing an unwarranted traffic control device?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Why do light poles have to be located so far from the street?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. How many bullet holes does it take to kill a sign-(sign vandalism)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Less is better-Why converting a four lane street to a three lane street may improve safety and not increase congestion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>ADD YOUR OWN QUESTIONS:</b>					
13. _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. _____ _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please return in self-addressed stamped envelope:  
(mail, fax, or phone)

2901 S. Loop Drive, Suite 3100  
Ames, Iowa 50010-8632  
Attention: Dr. Keith Knapp  
Phone (515)-294-7082, Fax 515-294-0467

FIGURE 1 Sample informational series question survey (continued).

Transportation Research and Education webpage. Overall, about 100 surveys were returned (a 33 percent response rate). The 12 questions suggested in the survey were weighed by the respondents and subsequently ranked by their average weight by CTRE. These questions, along with their average weight (i.e., ranking), are shown in Table 1. Ten of the questions, as indicated in Table 1, are being considered in this project.

**TABLE 1 Traffic Safety and Engineering Informational Series Survey Results: Suggested Questions/Issues**

Chosen for Consideration in Project?	Suggested Questions/Issues	Average Weight <sup>1</sup>
Yes	Won't a "CHILDREN AT PLAY" sign help protect our children?	4.12
Yes	Why can't we have stop signs to reduce speeding along my street?	4.03
Yes	Won't a lower speed limit lower travel speeds and the number of accidents?	3.79
Yes	Why can't we have a 4-way stop to reduce accidents?	3.47
Yes	Why can't I have several driveways to my property wherever I want them?	3.42
Yes	What is the harm in installing an unwarranted traffic control device?	3.12
Yes	Why aren't there better, longer lasting stripes on the road?	2.97
Yes	Won't a traffic signal reduce accidents?	2.94
Yes	Safe driving procedures at railroad crossings.	2.13
Yes	How many bullet holes does it take to kill a sign? (sign vandalism)?	2.13
No	Less is better-Why converting a four lane street to a three-lane street may improve safety and not increase congestion.	2.04
No	Why do light poles have to be located so far from the street?	1.99

<sup>1</sup>Weighting factors reversed from survey weighting scheme (See Figure 1) so the highest number represents the most frequently asked question. Average weight in this table is based on range of one (never asked) to five (frequently asked).

Seventy-seven individual questions were also provided and weighed by the survey respondents. Many of the questions were similar, however, and 12 question groups were formed. A summary question for 11 of these question groups was developed (the twelfth group consisted of six miscellaneous questions). The summary questions, along with their average weight (i.e., ranking) and the number of respondent questions they represent, are shown in Table 2. Ten of these questions are being considered in this project, as indicated in Table 2. Overall, the summary questions addressed represent 69 of the 77 questions suggested by the survey respondents.

## CONCLUSION AND FUTURE WORK

The survey constructed and distributed as part of this statewide informational series project provided invaluable direction for the selection of the questions it should address. It is believed the questions/issues chosen for consideration in this project will assist and possibly improve communication between transporta-

tion professionals, decision-makers, and the general public. The informational sheets developed will address the most commonly asked traffic and safety questions within Iowa in a clear, consistent, and understandable manner.

Answers to the questions identified in the informational series survey (see Figure 1) have been developed and are currently being reviewed. Distribution of the informational series packet to transportation professionals throughout Iowa is expected in spring 2000. This packet should provide another useful and understandable public information and education tool for transportation professionals.

**TABLE 2 Traffic Safety and Engineering Informational Series Survey Results: Summary Questions/Issues**

Chosen for Consideration in Project?	Summary Questions/Issues	Average Weight <sup>1</sup>	Number of Respondent Questions Represented
Yes	How does the county make decisions about paving gravel roadways?	5.00	9
No	How do you decide where to place signs?	4.50	2
Yes	Why can't I place a business-related directional sign within the roadway right-of-way?	4.50	4
Yes	What factors are considered when locating, controlling, and/or marking pedestrian/bicycle crossing?	4.38	8
Yes	Why can't all the signals be timed so I receive a green light at every intersection?	4.36	11
Yes	How are signals timed to accommodate pedestrians?	4.25	4
Yes	Why isn't there a "School Bus Stop Ahead" everywhere a bus stops?	4.25	4
Yes	How does the county make decisions about dust control on gravel roadways?	4.20	5
Yes	Why can't speed bumps be used on all streets to slow traffic?	4.17	12
Yes	How do you choose the posted speed limit and where you put signs?	4.00	5
Yes	When do intersections receive stop signs (2-way or 4-way) and signals?	4.00	7

<sup>1</sup>Weighting factors reversed from survey weighting scheme (See Figure 1) so the highest number represents the most frequently asked question. Average weight in this table is based on range of one (never asked) to five (frequently asked).

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